(6) Allocate no more than the following amount of time to the minimum instruction time: 1 hour for a single course, 2 hours for a combination of two basic courses, or 2.5 hours for a combination of three or more courses.

(b) A trainee who fails a retest must repeat the training and pass the test in order to work in the OCS in their job classification.

§ 250.228 What are MMS's requirements for the hands-on simulator and well test?

(a) The training organization must ensure that:

(1) The test simulates a surface BOP (or subsea stack for the subsea option) and the simulator is 3–D with actual gauges and dials.

(2) The instructor runs only one simulator and has a maximum of three students in each team.

(3) The simulator test time allocated to the minimum instruction time is 1 hour per course (i.e., 2 hours for a combination of two basic courses, etc.).

(4) The trainees are able to:

(i) Kill the well before removing the tree;

(ii) Determine slow pump rates;

(iii) Recognize kick warnings signs;

(iv) Shut in a well;

(v) Complete kill sheets;

(vi) Initiate kill procedures;

(vii) Maintain appropriate bottomhole pressure;

(viii) Maintain constant bottomhole pressure;

(ix) Recognize and handle unusual well-control situations;

(x) Control the kick as it reaches the choke line; and

(xi) Determine if kick gas or fluids are removed.

(5) In the subsea option, the trainees are able to:

(i) Determine choke line friction pressures for subsea BOP stacks; and

(ii) Discuss and demonstrate procedures such as circulating the riser and removing trapped gas in a subsea BOP stack.

(6) Offer a retest, when necessary, using different questions of equal difficulty.

(b) A trainee who fails a retest must repeat the training and pass the test to work in the OCS in their job classification.

[62 FR 5326, Feb. 5, 1997, as amended at 62 FR 7298, Feb. 18, 1997]

§ 250.229 What elements must a basic course cover?

See Table (a) of this section for well control and Table (b) of this section for production safety systems. The checks in Table (a) indicate the required training elements that apply to each job. Tables (a) and (b) follow:

TABLE (a).—WELL CONTROL

Elements for basic training	Drilling		WO		WS
	Super	Floor	Super	Floor	
1. Hands-on:					
Training to operate choke manifold		✔		✔	
Training to operate stand pipe		✔		✔	
Training to operate mud room valves		✔			
2. Care, handling & characteristics of drilling & completion fluids.	✔	✔			
3. Care, handling & characteristics of well completion/well workover fluids & packer fluids.			✔	✔	✔
4. Major causes of uncontrolled fluids from a well including:					
Failure to keep the hole full	✔		✔		
Swabbing effect	✔		✔		
Loss of circulation	✔		✔		
Insufficient drilling fluid density	✔		✔		
Abnormally pressured formations	✔		✔		
Effect of too rapidly lowering of the pipe in the hole	✔		✔		
5. Importance & instructions of measuring the volume of fluid to fill the hole during trips.	✔		✔		
6. Importance & instructions of measuring the volume of fluid to fill the hole during trips including the importance of filing the hole as it relates to shallow gas conditions.	✔				

TABLE (a).—WELL CONTROL—Continued

Elements for basic training	Drilling		WO		WS
	Super	Floor	Super	Floor	
7. Filling the tubing & casing with fluid to control bottomhole pressure.				✔	
8. Warning signals that indicate kick & conditions that lead to a kick.	✔	✔	✔	✔	
9. Controlling shallow gas kicks and using diverters	✔				
10. At least one bottomhole pressure well control method including conditions unique to a surface subsea BOP stack.	✔		✔		
11. Installing, operating, maintaining & testing BOP & diverter systems.	✔				
12. Installing, operating, maintaining & testing BOP systems.			✔		
13. Government regulations on:					
Emergency shutdown systems					✔
Production safety systems					✔
Drilling procedures	✔				
Wellbore plugging & abandonment	✔		✔		✔
Pollution prevention & waste management	✔	✔	✔	✔	✔
Well completion & well workover requirements (Subparts E & F of 30 CFR part 250).			✔		✔
14. Procedures & sequentials steps for shutting in a well:					
BOP system	✔		✔		✔
Surface/subsurface safety system					✔
Choke manifold	✔		✔		
15. Well control exercises with a simulator suitable for modeling well completion/well workover.			✔		
16. Well control exercises with a simulator suitable for modeling drilling.	✔				
17. Instructions & simulator or test well experience on organizing & directing a well killing operation.	✔		✔		
18. At least two simulator practice problems (rotate the trainees & have teams of 3 or less members).	✔		✔		
19. Care, operation, & purpose [& installation (for supervisors)] of the well control equipment.	✔	✔	✔	✔	
20. Limitations of the equipment that may wear or be subjected to pressure.	✔		✔		✔
21. Instructions in well control equipment, including:					
Surface equipment	✔		✔		✔
Well completion/well workover, BOP & tree equipment.	✔		✔		✔
Downhole tools & tubulars	✔		✔		
Tubing hanger, back pressure valve (threaded/profile), landing nipples, lock mandrels for corresponding nipples & operational procedures for each, gas lift equipment & running & pulling tools operation.	✔				✔
Packers	✔		✔		
22. Instructions in special tools & systems, such as:					
Automatic shutdown systems (control points, activator pilots, monitor pilots, control manifolds & subsurface systems).					✔
Flow string systems (tubing, mandrels & nipples, flow couplings, blast joints, & sliding sleeves).					✔
Pumpdown equipment (purpose, applications, requirements, surface circulating systems, entry loops & tree connection/flange).					✔
23. Instructions for detecting entry into abnormally pressured formations & warning signals.	✔				
24. Instructions on well completion/well control problems	✔				
25. Well control problems during well completion/well workover including:					
Killing a flow			✔		
Simultaneous drilling, completion & workover operations on the same platform.			✔		
Killing a producing well			✔		
Removing the tree			✔		
26. Calculations on the following:					
Fluid density increase that controls fluid flow into the wellbore.	✔		✔		

TABLE (a).—WELL CONTROL—Continued

Elements for basic training	Drilling		WO		WS
	Super	Floor	Super	Floor	
Fluid density to pressure conversion & the danger of formation breakdown under the pressure caused by the fluid column especially when setting casing in shallow formations.	✔				
Fluid density to pressure conversion & the danger of formation breakdown under the pressure caused by fluid column.			✔		
Equivalent pressures at the casing seat depth	✔				
Drop in pump pressure as fluid density increases; & the relationship between pump pressure, pump rate, & fluid density.	✔		✔		
Pressure limitations on casings	✔		✔		
Hydrostatic pressure & pressure gradient	✔		✔		
27. Unusual well control situations, including the following:					
Drill pipe is off the bottom or out of the hole/work string is off the bottom or out of the hole.	✔		✔		
Lost circulation occurs	✔		✔		
Drill pipe is plugged/work string is plugged	✔		✔		
There is excessive casing pressure	✔		✔		
There is a hole in drill pipe/hole in the work string/ hole in the casing string.	✔		✔		
Multiple completions in the hole			✔		
28. Special well-control problems-drilling with a subsea stack (subsea students) includes:					
Choke line friction determinations	✔		✔		
Using marine risers	✔		✔		
Riser collapse	✔		✔		
Removing trapped gas from the BOP stack after controlling a well kick.	✔		✔		
''U'' tube effect as gas hits the choke line	✔		✔		
29. Mechanics of various well controlled situations, including:					
Gas bubble migration & expansion	✔		✔		
Bleeding volume from a shut-in well during gas migration.	✔		✔		
Excessive annular surface pressure	✔		✔		
Differences between a gas kick & a salt water and/ or oil kick.	✔		✔		
Special well control techniques (such as, but not limited to, barite plugs & cement plugs).	✔		✔		
Procedures & problems involved when experiencing lost circulation.	✔		✔		
Procedures & problems involved when experiencing a kick while drilling in a hydrogen sulfide (H_2S) environment.	✔		✔		✔
Procedures & problems—experiencing a kick during snubbing, coil-tubing, or small tubing operations and stripping & snubbing operations with work string.	✔		✔		
30. Reasons for well completion/well workover, including:					
Reworking a reservoir to control production			✔		✔
Water coning			✔		
Completing from a new reservoir			✔		✔
Completing multiple reservoirs			✔		✔
Stimulating to increase production			✔		✔
Repairing mechanical failure			✔		✔
31. Methods on preparing a well for entry:					
Using back pressure valves			✔		
Using surface & subsurface safety systems			✔		✔
Removing the tree & tubing hangar			✔	✔	✔
Installing & testing BOP & wellhead prior to removing back pressure valves & tubing plugs.			✔		✔
32. Instructions in small tubing units:					
Applications (stimulation operations, cleaning out tubing obstructions, and plugback and squeeze cementing).			✔		
Equipment description (derrick & drawworks, small tubing, pumps, weighted fluid facilities, and weighted fluids).			✔		

TABLE (a).—WELL CONTROL—Continued

Elements for basic training	Drilling		WO		WS
	Super	Floor	Super	Floor	
BOP equipment (rams, wellhead connection, and check valve).			✔		
33. Methods for killing a producing well, including:					
Bullheading			✔		✔
Lubricating & bleeding			✔		✔
Coil tubing			✔		✔
Applications (stimulation operations, initiating flow, & cleaning out sand in tubing).					✔
Equipment description (coil tubing, reel, injecting head, control assembly & injector hoist).					✔
BOP equipment (tree connection or flange, rams, injector assembly & circulating system).					✔
Snubbing			✔		✔
Types (rig assist & stand alone)					✔
Applications (running & pulling production or kill strings, resetting weight on packers, fishing for lost wireline tools or parted kill strings & circulating cement or fluid).					✔
Equipment (operating mechanism, power supply, control assembly & basket, slip assembly, mast & counterbalance winch & access window).					✔
BOP equipment (tree connection or flange, rams, spool, traveling slips, manifolds, auxiliary—full opening safety valve inside BOP, maintenance & testing).					✔
34. The purpose & use of BOP closing units, including the following:					
Charging procedures include precharge & operating pressure.	✔		✔		
Fluid volumes (useable & required)	✔		✔		
Fluid pumps	✔		✔		
Maintenance that includes charging fluid & inspection procedures.	✔		✔		
35. Instructions on stripping & snubbing operators & using the BOP system for working pipe in or out of a wellbore under pressure.	✔				

TABLE (b)—PRODUCTION SAFETY SYSTEMS

1. Government Regulations:
   - Pollution prevention & waste management
   - Requirements for well completion/well workover operations
2. Instructions in the following: (contained in, but not limited to, API RP 14C):
   - Failures or malfunctions in systems that cause abnormal conditions & the detection of abnormal conditions
   - Primary & secondary protection devices & procedures
   - Safety devices that control undesirable events
   - Safety analysis concepts
   - Safety analysis of each basic production process component
   - Protection concepts
3. Hands on training on safety devices covering, installing, operating, repairing or maintaining equipment:
   - High-low pressure sensors
   - High-low level sensors
   - Combustible gas detectors
   - Pressure relief devices
   - Flow line check valves
   - Surface safety valves
   - Shutdown valves
   - Fire (flame, heat, or smoke) detectors
   - Auxiliary devices (3-way block & bleed valves, time relays, 3-way snap acting valves, etc.)
   - Surface-controlled subsurface safety valves &/or surface-control equipment
   - Subsurface-controlled subsurface safety valves
4. Instructions on inspecting, testing & maintaining surface & subsurface devices & surface control systems for subsurface safety valves
5. Instructions in at least one safety device that illustrates the primary operation principle in each class for safety devices:

TABLE (b)—PRODUCTION SAFETY SYSTEMS—Continued

Basic operations principles
Limits affecting application
Problems causing equipment malfunction & how to correct these problems
A test for proper actuation point & operation
Adjustments or calibrations
Recording inspection results & malfunctions
Special techniques for installing safety devices
6. Instructions on the basic principle & logic of the emergency support system:
Combustible & toxic gas detection system
Liquid containment system
Fire loop System
Other fire detection systems
Emergency shutdown system
Subsurface safety valves

[62 FR 5326, Feb. 5, 1997, as amended at 62 FR 7298, Feb. 18, 1997]

§ 250.230 If MMS tests employees at my worksite, what must I do?

(a) You must allow MMS to test employees at your worksite.

(b) You must identify your employees by:

(1) Current job classification;

(2) Name of the operator;

(3) Name of the most recent basic or advanced course taken by your employees for their current job; and

(4) Name of the training organization.

(c) You must correct any deficiencies found by MMS. Steps for correcting deficiencies may include:

(1) Isolating problems by doing more testing; and

(2) Reassigning employees or conducting training (MMS will not identify the employees it tests).

§ 250.231 If MMS test trainees at a training organization's facility, what must occur?

(a) Training organizations must allow MMS to test trainees.

(b) The trainee must pass the MMS-conducted test or a retest in order for MMS to consider that the trainee completed the training.

§ 250.232 Why might MMS conduct its own tests?

MMS needs to identify the effectiveness of a training program that provides for safe and clean operations.

§ 250.233 Can a training organization lose its accreditation?

Yes, an accredited organization can lose its accreditation. MMS may revoke or suspend an organization's accreditation for noncompliance with regulations or conditions of its accredited program, or assess civil penalties under subpart N of this part.

Subpart P—Sulphur Operations

SOURCE: 56 FR 32100, July 15, 1991, unless otherwise noted.

§ 250.250 Performance standard.

Operations to discover, develop, and produce sulphur in the OCS shall be in accordance with an approved Exploration Plan or Development and Production Plan and shall be conducted in a manner to protect against harm or damage to life (including fish and other aquatic life), property, natural resources of the OCS including any mineral deposits (in areas leased or not leased), the national security or defense, and the marine, coastal, or human environment.

§ 250.251 Definitions.

Terms used in this subpart shall have the meanings as defined below:

Air line means a tubing string that is used to inject air within a sulphur producing well to airlift sulphur out of the well.

Bleedwater means a mixture of mine water or booster water and connate water that is produced by a bleedwell.